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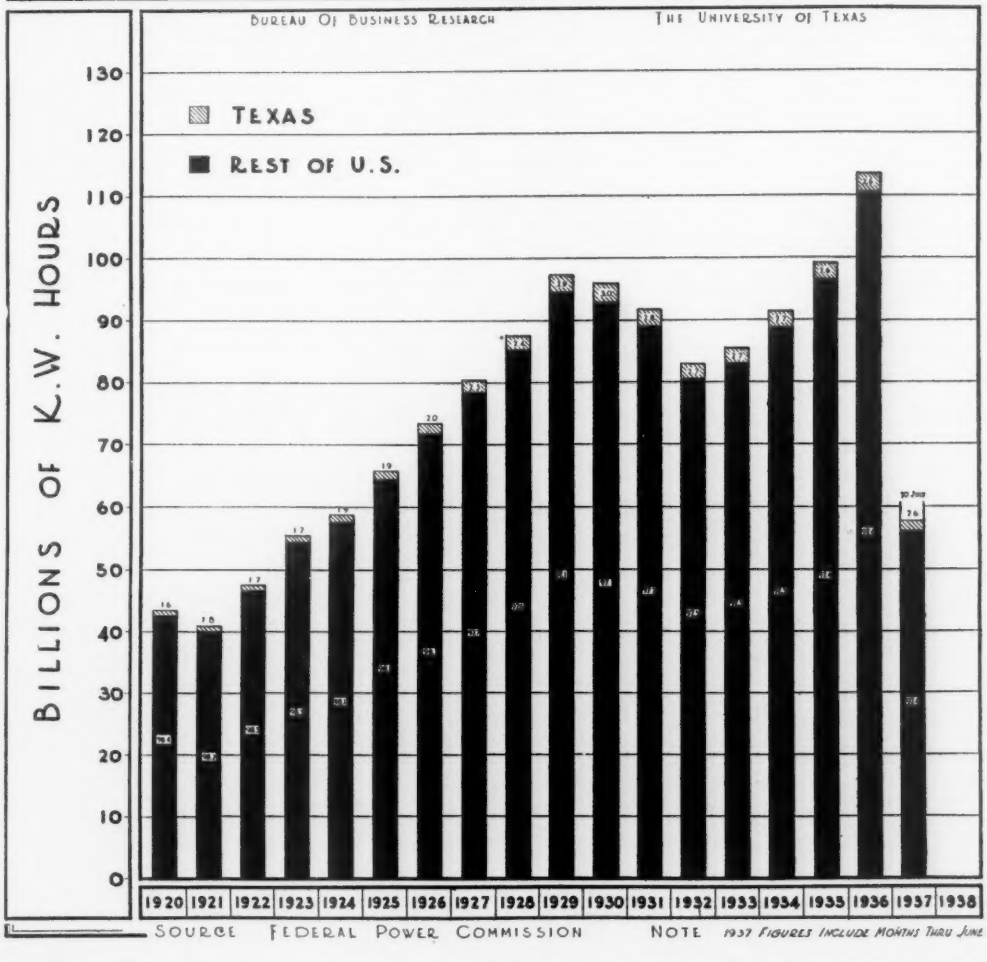
CONSUMPTION OF ELECTRIC POWER IN TEXAS AND REST OF U. S. SINCE 1920



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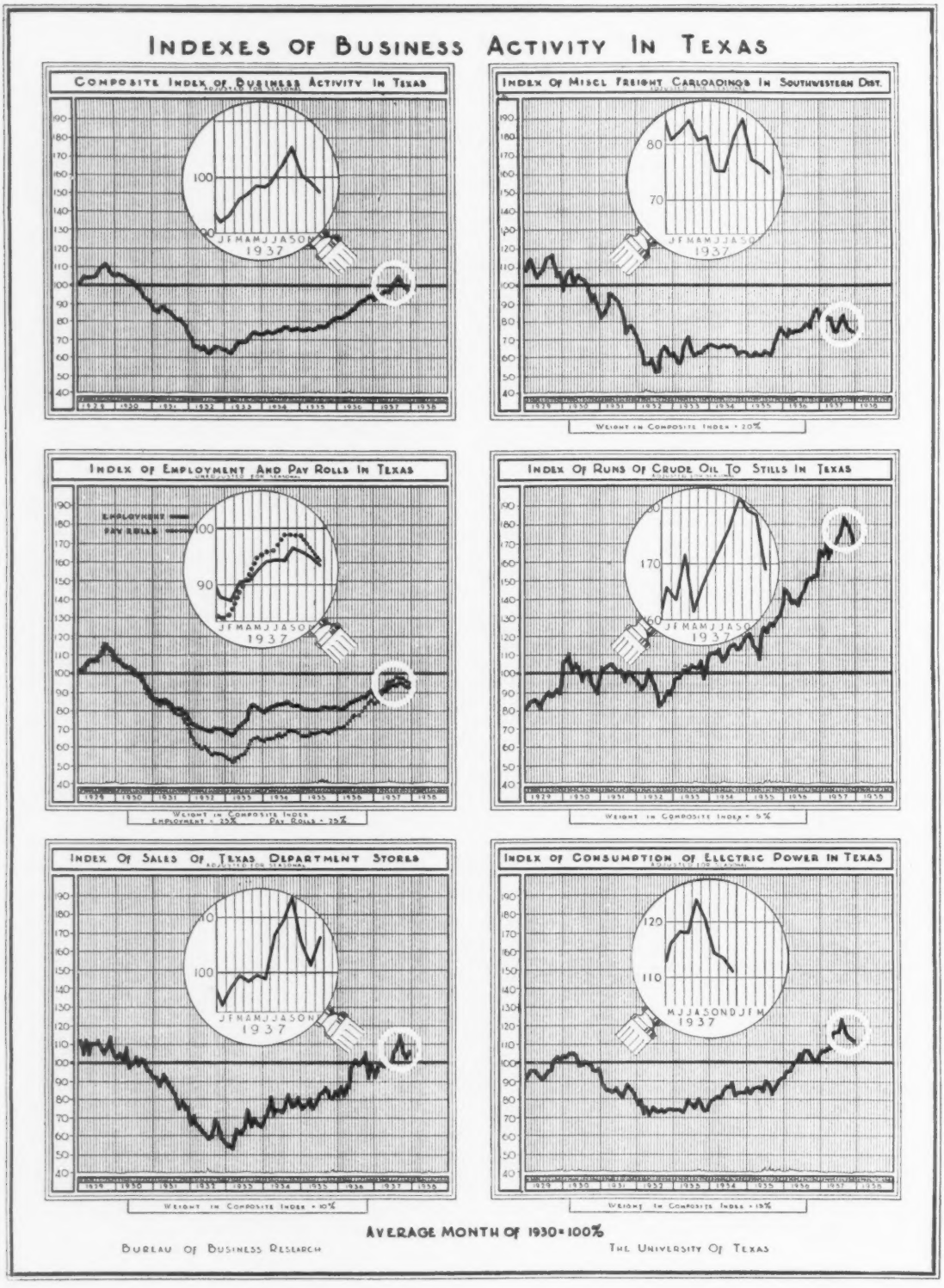
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BUREAU OF BUSINESS RESEARCH
THE UNIVERSITY OF TEXAS

Business Review and Prospect

In spite of discordant notes and flamboyant remarks as reflected in the press reports from time to time, the conferences now going on in Washington between leaders in government, industry, and labor appear to be making progress. A genuine effort toward better understanding and greater coöperation among those representing the economic, political, and social organization of the Nation is obviously being made. Moreover, there is nothing more important in the affairs of the Nation than that these three elements—economic, political, and social—be coördinated into a unified policy.

If at times feelings are tense and statements extravagant, thus temporarily hindering rather than promoting progress, the situation is to be considered as the price which can well be paid for the privileges we enjoy of working out our problems through democratic rather than dictatorial processes.

Fundamental social readjustments when too long delayed are always painful, and under our democratic organization ample media exist for giving full expression to the thoughts and emotions of affected groups, although some of these groups may constitute but a small minority of the total population. Especially is this true where the membership of the minority group has similar or identical interests under aggressive leadership. These can make themselves heard more promptly than larger and more heterogeneous groups, and thus temporarily may give a greatly distorted picture of actual public sentiment in the country. But in this country the great middle class, embracing upward of two thirds of the population and owning a proportionate part of the wealth and social heritage of the Nation, is still the most influential body. All that is required is that effective leadership bring the opinion of this group to a focus, and that this opinion be correctly interpreted and made politically effective by their chosen representatives. There is little doubt but that the process of crystallizing middle class opinion in this country is gaining momentum, and the results will become increasingly apparent.

If it is accepted as a fact that public opinion is now being shaped by the more responsible elements of the population, there is less cause to become unduly pessimistic over the adverse industrial and business statistics which currently prevail. Although Barron's business index for the Nation at large now stands at 57.8 compared with 85.2 a year ago, there are growing signs that the bottom of the business decline has about been reached. With the restoration of confidence and the growth of an unmistakable spirit of coöperation among the various groups of the Nation's leaders, the business outlook could readily become more promising than at any time since recovery began.

Texas Business

Thus far the business structure in Texas has been quite successful in withstanding the adverse effects of the sharp industrial decline in the Nation generally, especially in the Northeast. Should the outlook in the industrial and financial centers of the Nation remain obscure, however, for a further considerable period of time it is difficult to see how Texas could escape the results of the diminished demand, which would result, for her vast surplus products such as oil, cotton, livestock, wool, mohair, and others. Ultimately such a situation would have its effect on retail and wholesale trade in the State, which to date has yielded but little to the industrial decline. It is not merely wishful thinking, however, to expect that seasonal influences may soon be added to the constructive forces already referred to and thus reverse the downward trend of industrial activity which has prevailed for almost a year in the country at large, but which did not become acute until last September.

The Texas composite business index adjusted for seasonal variation, as computed by the Bureau with the average month in 1930 as a base, was 97.8 in December, which compares with 99.1 in November—a decline of 1.3 per cent—but which still represents a margin of gain of 3.1 per cent over the December 1936 index of 94.9.

Only one of the components of the index, department store sales, showed an increase over the two comparable periods. This index is 106.4 for December, 101.3 for November, and 99.7 for December, 1936. The indexes for the other components expressed in the same order are: employment, 93.6, 94.9, 91.7; pay rolls, 94.6, 96.2, 86.1; miscellaneous freight car loadings, 75.0, 76.1, 87.6; runs of crude oil to stills, 169.4, 180.5, 152.8; electric power consumption, 110.9, 113.4, 102.2.

Farm Cash Income

Cash income from agriculture in Texas during December as computed by this Bureau was $26,121,000, whereas the average December farm cash income during the base period (1928–1932) was approximately $23,040,000. Thus the farm cash income in December, 1937, was 113.2 per cent of that of the average December farm cash income during the five-year period, 1928 to 1932, inclusive. For 1936 the computed farm cash income for Texas during December was only $20,450,000, or 88.6 per cent of that during the average December in the base period. The increase in farm cash income in December, 1937, over the corresponding month the year before was nearly 23 per cent. These percentages are called index numbers and are included with others in the table below. The indexes for each district were computed in a manner similar to that described above for the State as a whole.

It will be noted that the regions of the State, in which comparative farm cash income with December last year was most favorable, were the North High Plains (district 1–N); the South High Plains (district 1–S); and

For Other Texas Data, See Statistical Tables at the End of This Publication

INDEX OF AGRICULTURAL CASH INCOME

District	Dec. 1937	Dec. 1936	Nov. 1937
1–N	122.7	92.7	121.6
1–S	171.8	92.6	256.8
2	59.7	32.5	92.3
3	107.0	124.4	101.1
4	93.6	74.2	69.2
5	78.8	79.6	42.2
6	123.2	129.8	89.0
7	87.7	89.6	88.4
8	79.5	107.0	78.2
9	107.8	111.2	113.7
10	265.9	198.0	181.5
10–A*	338.7	244.9	224.7
STATE	113.2	88.6	115.1

*Included in District 10.

NOTE: For Texas crop reporting districts see p. 11 of the November TEXAS BUSINESS REVIEW, and for the trend of farm cash income from 1927 to date see TEXAS BUSINESS REVIEW, December, 1937, pages 4 and 5.

the Lower Rio Grande Valley (district 10–A). The income in the latter district is also included in that of district 10.

The increase in farm cash income in district 1–N was derived primarily from cotton and wheat and, to a lesser extent, from the larger income derived from livestock. In district 1–S the gain in farm cash income came almost entirely from cotton, the income from this source having been more than twice as large as it was in December, 1936. The abnormally large crop in the district much more than offset the low price.

In the Lower Rio Grande Valley practically all of the farm cash income during this season of year comes from citrus fruits and fresh vegetables. The income from these sources during December surpassed even the good record of a year ago by a wide margin.

Other regions of the State in which farm cash income held up well during December were the Trans Pecos country (district 6), the Edwards Plateau (district 7) and the Coastal Plains (district 9. In each of these districts livestock constitutes the main source of farm cash income.

F. A. BUECHEL.

Financial

Aside from the usual year-end banking trends, financial news has been distinctly limited during the past month. Among the more significant events of the period, however, might be mentioned these three: an extension of the domestic silver buying program, President Roosevelt's budget message to Congress forecasting an indefinite continuation of Treasury deficits, and a renewed heavy flight of capital from France.

As had been generally expected, Mr. Roosevelt on January 1 proclaimed an extension of his domestic silver purchasing program. The purchase price of the American-produced metal, however, was lowered from 77.57 cents to 64.64 cents per ounce, a figure approximately 50 per cent above the current world price. No announcement was made relative to purchase of foreign silver, but it is evident that the Treasury is continuing to support the London market at a level of about 44 cents per ounce. It is interesting to note the progress which has been made by the Administration thus far in achieving the goal of a silver monetary stock amounting to one-third the value of the gold stock. Valuing silver at the coinage figure of $1.2929 per ounce, 1,320,000,000 fine ounces of the white metal were needed in June, 1934, when the Silver Purchase Act was enacted. To date, approximately 1,500,000,000 ounces have been purchased and yet, because of heavy gold imports, some 1,200,000,000 ounces are required to be purchased. It is faintly hopeful to learn that some Administration leaders, notably Secretary Morgenthau, appear to be dissatisfied with this extremely undesirable and unsound silver buying program.

In his fifth annual budget message President Roosevelt forecast budget deficits of $1,088,000,000 for the current fiscal year and of $950,000,000 for the year ending June 30, 1939. Included in the income estimates for these two years are social security and railway employee retirement fund receipts amounting to $721,000,000 and $716,000,000, respectively. In view of the current business depression, Treasury revenues for 1939 were estimated some $400,000,000 under estimated income for the current fiscal year.

Deficit estimates for the next fiscal year were based on the assumption that the cost of the Administration's new farm program would not exceed the allowance for the current year's farm program; that work relief would cost $322,000,000 less than this year's estimate; and that Congress would approve a $258,000,000 cut in 1938 appropriations for public works, $140,000,000 of which would come from highway appropriations. Further, the President indicated that appropriations for national defense were on an "open-end" basis, which suggests substantially increased future expenditures for the army and navy. It would appear, therefore, that the Administration has given up all idea of a budget balance for an indefinite future period, at least until such time as Treasury revenues exceed $7,000,000,000 a year.

Reflecting the development of another poltical crisis, a heavy flight of capital from France occurred shortly after the turn of the year. As a result of this pressure, the franc exchange rate dropped from $.0339 on January 6 to $.0328 on January 14, the lowest level to be reached since 1926. Because of the inability of the French stabilization fund to support the franc, the Bank of France temporarily suspended dealings in franc exchange on January 14. Unless the serious political and economic difficulties confronting France can be satisfactorily solved in the near future, it seems certain that the franc must go under rigid government control.

Both customer loans and demand deposits of commercial banks continued to shrink over the year end. Total loans of the reporting member banks declined from $9,509,000,000 on December 8 to $9,226,000,000 on January 5. During the period, commercial and agricultural loans decreased approximately $111,000,000 and loans to brokers dropped $106,000,000, the latter drop reflecting the low level of stock prices and diminished trading

volume on the security exchanges. Although there is some seasonal tendency for commercial loans to run off over the year end, most of the shrinkage reported in that category of lending can be attributed to the depressed level of business activity.

Reporting member bank holdings of bonds revealed little change during the month. The government obligations account expanded from $9,115,000,000 on December 8 to $9,181,000,000 on January 5. This slight increase, however, was largely offset by a decline in holding of other securities.

Reflecting largely the liquidation of customer loans, the adjusted demand deposits of the reporting member banks declined from $14,707,000,000 on December 8 to $14,219,000,000 on January 5, a drop of $488,000,000. The figure as of the latter date compares with $15,425,000,000 a year ago. Deposit totals, however, can be expected to expand substantially during January as a result of the seasonal return flow of currency from circulation which, from December 22 to January 12, had already amounted to $286,000,000.

Primarily as a result of this return flow of currency from circulation, excess reserve balances of the member banks reached $1,390,000,000 on January 12, the highest level since member bank legal reserve requirements were raised last May. At the existing reserve ratios, these excess balances could support additional commercial bank deposits of at least $5,500,000,000. In view of this actual and potential supply of loanable funds, it is not surprising to find interest rates in the short term money markets continuing to be extremely low. Indeed, the prices of short term Treasury obligations have improved materially during recent weeks, 91 day bills discounting at less than ⅛ per cent and the yield on three- to five-year notes decling below 1¼ per cent. The immediate outlook is for a continuation of easy money conditions, which suggests that an early renewal of Federal Reserve Bank open market purchasing is unlikely.

J. C. Dolley.

Some Larger Aspects of the Chemical Industry in Texas

The growing industrialization of Texas and the Southwest and of the Southeast as well is worthy of all the attention and interest that people in these sections are able to give to this movement; for the advance of industry southward and southwestward unquestionably is one of the most important if not the most important economic development that has come to the so-called Cotton South during the past three-quarters of a century.

Of the more recent of these developments the outstanding growth of the petroleum and natural gas industries in the Gulf Southwest has created most attention. But more recent still has been the shifting of heavy chemicals, particularly the alkalis (soda ash and caustic soda) to the Gulf Coast of the Southwest and that of the Kraft pulp and paper industry into the Southern pine forests of the Coastal Plain. The pulp and paper industry itself is a large consumer of certain chemicals.

This whole movement is tied in with the discovery of the great reserves of fuel and energy materials (petroleum and natural gas) particularly in the Gulf Southwest, with similar discoveries of non-metallics such as salt and sulphur particularly in Texas and Louisiana, and with an advancing technology which renders the large reserves of the Southern Pines available for pulp and paper production.

In the wake of these three main spear-heads of advance—oil and gas, non-metallics, and the wider utilization of Southern Pine—are a number of supplemental and allied industries many of which are small, but which in the aggregate amount to a significant total. Finally, in comparison with industries of the Northeast the industries noted above are new industries; and each one is a growing industry. That these industries have advanced steadily during and in spite of the depression should be indicative that they are dynamic in their nature. Furthermore, there seems to be no reasoonable doubt that these industries will advance substantially in the immediate future. Their future, as Van Loon might say, lies ahead —not behind them.

Towards a Perspective Regional Economics and the Wider Setting of Texas Industry

Modern economic life represents adjustments through science and technology to natural resources of the various portions of the earth. Regions the world over possess certain combinations of location (determining climate and commercial accessibility), geographic geology, mineral resources and the like, which constitute inherent attributes of those lands. Investigations of the inherent natural conditions of more or less homogeneous regions and of the economic adjustments thereto (these adjustments being influenced and usually to a considerable degree by forces from outside the particular region, that is, from other regions) constitute the bases of regional economics.

It is well recognized that any worthwhile discussion of the potentialities of the chemical industry in Texas and the Southwest, and the same holds for the shifts of industry southward and westward, must be concerned with the wider setting of the whole problem. This article deals in outline with points of view regarding the factors and forces which are fundamentally concerned in these geographic shifts of industries.

In the first place geographic shifts may be regarded as adjustments within the national economy and as such they are definite expressions of interrelated and interconnected forces. Interrelationships among industries are pretty well recognized; it is not always recognized that the fundamental relationships are of necessity brought about by the very complexity of modern industrial operations. It should be understood that in this

paper we are directly discussing pecuniary interrelationships.

There are no grounds for believing that the fundamental relationships between the various basic elements of our national economy are generally given anything like the recognition they merit. There is, for instance, no thoroughgoing recognition of the inherent significance of the regional aspects of our national economy. For there is something more to regional economics than sectionalism, flamboyant or otherwise; there is something more to regional economics than mere exchange of goods and services between the various regions, important though that is—since internal commerce is the basis of our domestic trade. There is even something more to regional economics than the concept that some regions are destined to be activating centers; that others are destined to be forever passive, or even submissive—even though this is a perfectly logical outgrowth of the rather limited and somewhat shortsighted concept of exchange economics as that idea is commonly expressed in our textbooks on economics. The modern world is, owing to its science and technology, mainly dependent upon creative and developmental forces; while reduced to brass tacks exchange economy is pecuniary.

Because the concept that certain portions of the United States are but "provinces" of other portions of the country has been given rather wide acceptance is reason enough to justify critical analyses of the situation, which to date have not been made or at least are not available.

There is still another zone of impact within our national economy that deserves mention in even this brief outline—and that is concerned with the fundamental differences between agriculture and manufacturing industry. These differenecs are inherent in the very nature of these two groups of economic endeavor; the resulting situation is of especial importance to our national economy because the United States is at once a leading agricultural and a leading manufacturing nation. Moreover, this situation is important to any policy that will affect our international trade, for the United States is the only important industrialized nation that is also a large exporter of an agricultural raw material—cotton. Furthermore, most of the cotton exported from the United States is grown in the Southwest, and of this Texas contributes a very large share.

Any comprehensive discussion of the economics of Texas agriculture, or of Texas mineral production, or of manufacturing must necessarily be related to the national picture; and likewise, no comprehensive analysis of the national picture can omit Texas from analyses of either agriculture or industry—or specifically, cotton, cattle, sheep, mohair, citrus, the dairy industry, canning, cellulose, or petroleum, natural gas, salt, sulphur, gypsum, cement materials, and even lignites and potash; nor can such a national study omit consideration of the buying power and the markets, actual or potential, that Texas now has and which inevitably will expand and diversify as the economic utilization of Texas natural resources advance to more mature stages.

The Historical Perspective

From the standpoint of historical development, manufacturing industries can be grouped into two classes: the old and the new. Typical of the old industries are iron and steel, and textiles made from natural fibers—and these and closely associated groups of industries are on the whole dominated by conservative policies and characterized by attitudes of complacency. Typical of the new industries are the wizards of the modern world: the electrical and the chemical industries, themselves closely interrelated, and whose reactions, so to speak, have permeated every item of modern industry and ramify in a substantial manner through the entire web of modern economic life.

These new industries are fortunate in that they do not have to push along as they advance the figurative wheelbarrows loaded down with obsolete practices which so often belong on the rubbish heap of out-moded technology.

The distinguishing characteristics of chemistry and electricity, as applied to the work-a-day world, lies in the mobility they engender in economic life wherever either or both of these factors have reasonable sway of influence. From an economic standpoint they are inherently dynamic—because of the creative nature of their being. In their historical development and in their impacts upon economic life, both of these industries have, directly and indirectly, been highly dynamic in their influences, even to the extent of jarring certain other industries out of attitudes of smug complacency.

Even if the statement that Texas is making advances industrially is too often met with an air of derision, yet it may be pointed out that the Texas chemical industry has too many paralleling features with the progress of the chemical industry as a whole to be so summarily dismissed. There are, however, other criteria of progress than those susceptible to mechanical measurement whether by the slide rule or the cash register, and it may well be that the more intangible but none the less dynamic reactions of the chemical and allied industries in Texas may produce results of even greater importance than added dollars and cents important as these items are.

Basic to an understanding of Texas economic development as a whole, or of its various industries or regions, are those fundamental factors of geographic location and of geographic geology which have provided the setting and the degree of accessibility of the magnificent natural resources within the boundaries of the State, to say nothing of the regions adjacent to Texas and which are also of such great importance to Texas industries. And just as necessary as are the physical bases of Texas production to an understanding of Texas economic development, is an understanding of how the great movements of economic history have impinged themselves upon and reacted within the Greater Texas Region. Of especial importance in the operation of great historical movements are the technical advances and the scientific background on which technology rests and are so thoroughly part and parcel of such movements.

These are the things, these are the forces, with which Texas people have in the past and will continue in the future to rely upon; to these things adjustments must be made if Texas economic and social progress is to be at all commensurate with its magnificent natural endowments. The rapid advance of science and the so-called

conquest of the environment which science has made possible have not diminished the dependence of modern economic life upon natural resources; it has only made that dependence greater in extent and degree and thereby intricately complex. The march of science itself has been one of the determining factors of the great inclusive historical movements; it has been and is perhaps the dominant factor and a motivating force of unmeasured magnitude for the past century and a half. Nowhere are these scientific and technical advances better illustrated or the dependence upon natural resources more pronounced than in the modern chemical industry and its more closely allied industries.

The beginnings of the chemical industry may be dated from 1791—when the Frenchman LeBlanc was able to manufacture alkali (sodium carbonate) from common salt, with the use of sulphuric acid. LeBlanc had started on his search in the middle 1780's for a cheap alkali for the French glass industry, when England had cut off certain sources of imports from France. The LeBlanc process, but not the man, survived the horrors of the French Revolution. Low-cost sodium carbonate supplied in adequate quantities by this process served to revolutionize the soap industry and, by making soap more of a commonality, cheap alkali was of even greater importance than in its effects in resuscitating the French glass industry which was doomed to remain relatively a small industry. The new soap industry in turn greatly modified other industries.

But during these years the English cotton textile industries were being mechanized; large production could be attained by power machinery but there remained the problem of bleaching the fabrics. However, the LeBlanc alkali process gave off large quantities of chlorine gas—which at first constituted a nuisance. Then it was learned that this obnoxious product could be used to make bleaching powders and naturally the by-product became a highly important item in the textile industries. Long since has the LeBlanc process been practically discarded—for in 1863 the Belgian, Ernest Solvay, had learned to make alkalis without the use of sulphuric acid. The Solvay process, more economical than the LeBlanc method, is still used. Although the new process used no sulphuric acid, the expanding needs of other industries for sulphuric acid maintained a growing market for sulphuric acid down to 1930.

As in the case of the earlier LeBlanc process the Solvay process brought in its wake a series of wider uses, owing to the lower cost of its product. The growing soap industry required more and more alkali and the same thing became true of the glass industry. Caustic soda was prepared in large quantities from sodium carbonate because of the growing demands, particularly after 1870, for caustic by the textile industries, petroleum refining, and pulp and paper, and still later by the rayon and synthetic fibers industries.

Today the electrolytic process for making soda from common salt has achieved considerable importance, and in addition this method also yields chlorine, with hydrogen gas as a by-product.

The heavy alkali industries—mass production of soda ash and caustic soda—have but recently come into the Southwest; of the three units Texas has but one—Southern Alkali at Corpus Christi. The Corpus Christi concern has under construction a chlorine unit as has the Solvay plant at Baton Rouge, Louisiana.

A modern petroleum refining plant is ordinarily passed by as just another refinery. Yet all such modern plants are complex chemical factories turning out a variety of products that are as absolutely necessary to modern industry and transportation as the metals out of which modern machinery is built. They are indeed a far cry from the simple methods Benjamin Silliman used in distilling the new "rock oil" which until "Drake's folly" in 1859 was obtained from surface seepages.

The history of sulphur is closely allied with the growth in demand for sulphuric acid. Prior to 1903 sulphur was supplied from Sicily or, when the Sicilian price was boosted too high, from iron pyrites. In the 1880's German university trained Herman Frasch had been employed to solve the problem of sulphur in crude oil produced in Ohio. In 1880 he developed the ingenious Frasch process of getting sulphur from the caprock of certain salt domes of the Texas-Louisiana Gulf Coast, for this sulphur cannot be mined by ordinary methods. This method was not used commercially until 1903—two years after historic Spindletop turned the eyes of the Nation's oil industry toward Texas. Production of sulphur by the Frasch process rose slowly until the World War period, and since that period production of sulphur from Sicily, like that of nitrates from Chile, exists, one might well say, through sufferance. Sulphur from pyrites remains important—but the Frasch process and the sulphur deposits of coastal Texas and Louisiana broke the back of the Sicilian monopoly.

The course of the history of sulphuric acid is even more complicated. The early sulphuric acid industry, necessary to the LeBlanc process for large production of alkali, early had to solve troublesome problems in its technology. Then after the middle of the nineteenth century there arose a large-scale commercial fertilizer industry just at the time the sulphuric acid using LeBlanc process was being superseded by the Solvay process which did not require sulphuric acid. Large amounts of sulphuric acid came to be used in treating phosphate rock, thereby rendering the rock available for fertilizer. Still later rose petroleum refining and the need for large amounts of sulphuric acid in making lubricating oils which were becoming an essential industrial item in the new heavy machinery operated at high speeds.

The rapidly expanding iron and steel industry began to use large quantities of sulphuric acid for "pickling" operations—for removing rust and otherwise cleansing the metal surface so that galvanizing or tin-plating could be done effectively.

More effective processes for making sulphuric acid had come into being after years of trial and error experimentation. But the so-called contact process for making sulphuric acid had to await commercial production of sulphur by the Frasch process—because of the degree of purity required of the raw material thus produced at low cost. The increased supplies of raw materials and the more efficient processes served to lower production costs of sulphuric acid immensely.

Sulphuric acid is not only difficult to transport, but a unit volume of the acid is about three times as heavy as the weight of the sulphur used in making that volume of acid. Thus sulphur rather than the sulphuric acid is usually shipped, and most large users of sulphuric acid provide their own plants for manufacturing the acid.

Sulphuric acid during the 1920's grew in volume of production and in diversity of uses; 1929 was an all-time high for sales of this commodity—but the sales that year were greatly below total production.

Since 1929 the lot of sulphuric acid has not been a happy one. The chemical industry as a whole was hit by the depression, but that industry soon came back, and in fact made steady advances throughout most of the period of the depression. Sulphuric acid, however, for the first time since the closing years of the eighteenth century has lagged behind the chemical procession. Petroleum refining no longer takes the large quantities of sulphuric acid it formerly did; solvent methods and certain synthetic compounds have replaced many of the processes formerly requiring sulphuric acid in the modern oil refinery. The fertilizer industry has learned to treat phosphate rock without sulphuric acid and pickling of steel is being done with the use of hydrochloric acid. Even hydrochloric acid is no longer necessarily made by treating salt with sulphuric acid but can be made by the chlorination of certain hydrocarbons which until recently were waste products in petroleum refining.

Unquestionably the demands for chlorine have been rising rapidly. Chlorine also derived from common salt has long been used as a textile bleaching agent. Later it came to be used for medicinal purposes as a germicide and cleansing agent and also as a bleaching agent in the production of white paper. It has come to be used widely in making carbon tetrachloride—now an essential in dry-cleaning and which is still used as the flame-smothering material in certain fire extinguishers. Not only is chlorine more and more in demand for uses as flame-proof dry-cleaning solvents but it has come to have wide uses in the manufacture of non-poisonous refrigerants. Besides its new uses, chlorine-related materials are competing with sulphuric acid in the making of certain plastics and in petroleum refining.

The raw materials of the chemical industry comprise salt and sulphur, limestone, coal and lignites, petroleum and natural gas, and cellulose, together with water and air. From these are made such chemicals as the common acids—sulphuric, hydrochloric, and nitric; the "heavy" alkalis—soda ash and caustic soda; the extremely complex and diverse products from coals and petroleum; the industrial gases—hydrogen and chlorine; together with such essentials of today's world as ammonia, industrial alcohols, and other solvents, besides the even more recent plastics and related materials. These products directly or indirectly ramify throughout every fiber of the web of our economic structure. One who is ignorant of the place of modern chemicals is ignorant of today's world.

Hydrogen as an industrial gas is of especial interest in Texas through its uses of hydrogenation. Cottonseed oil hydrogenized is rendered available for cooking compounds and margarine, and also for soaps. Just now the soap industry is interested in so-called "soapless" soaps—made without the use of alkali—but the economic and political problems centering about the irreplacable vegetable oils is now more critical than ever before. Hydrogenation of coal and lignites is in Europe an established industry. In Germany, where so much of this type of work has been done—owing to Germany's lack of petroleum supplies—it has been found that the poorer coals and lignites are the most satisfactory for making liquid hydrocarbons by the hydrogenation process. In years to come it may well be that Texas' reserves of lignites will acquire new importance as the wheel of technology advances.

To sum up—Texas economic development in the past hundred years has been characterized by three major types of advance. During this period Texas agriculture and ranching have advanced over the widely sweeping Texas plains and prairies and have occupied in a series of successions the vast productive lands of the various regions of the State. The results of this advance are expressed in the leadership of Texas in the volume of production of a wide variety of crop and livestock products. Together with the forests of humid eastern Texas, the large areas of naturally rich soils and the extensive natural grasslands have been basic to the economic development of the State. However, a very large proportion of all these products have been and are still being shipped out of Texas as raw materials.

Since 1900 the great oil reserves of Texas—the Coastal Plains, Western and Central Texas, and more recently the East Texas field—have brought to the State leadership in petroleum production, refining, and in extent of oil exploration. These movements will go on—for how long no one knows—but it is a safe assumption that Texas will still be producing considerable petroleum when the production of that commodity in other states has declined to a rather low level. More recently Texas has achieved leadership in natural gas production, and it still maintains leadership in the sales of this important commodity to users outside the State.

Also since 1900 Texas has been increasing its production of non-metallics other than petroleum and natural gas; one of the first of these produced on a large scale was sulphur whose sales shot up substantially during the World War. Salt has long been produced in the State, as have cement and gypsum.

There is no question as to the wide importance and the vastness and diversity of the economic reactions occasioned by the growth and extension of the petroleum and natural gas industries in the State.

More recently still the vanguard of the third great movement in Texas economic history is definitely expressed in the production of heavy alkalis using salt as the raw material. Soda ash and caustic soda have been and remain the big items in this field. But the demands for chlorine are increasing along with the demand for hydrogen gas which is a by-product of electrolytic caustic soda. Who can foretell what new developments are in the offing in the chemical industry proper, or petroleum refining, or in more effective utilization of natural gas? Of one thing there is certainty: these industries cannot stand still—they must advance or be superseded by the

results of scientific investigation which revolves about natural resources—at once making them go farther and at the same time creating a never-ending procession of finer and more diverse goods and services which can be used to make the world a more decent place in which to live and work and create.

ELMER H. JOHNSON.

Recent Manufacturing Developments in Texas

New manufacturing enterprises developed in the State during the latter half of 1937 include widely diverse types of industries. These are distributed in and around the centers of population, in sections of the State producing non-metallic minerals, and in areas convenient for the location of oil refineries. The greatest increase in number of new industries during the last six months, according to information available, is in food processing enterprises including canning plants, wholesale bakery establishments, plants producing dairy products, and packing houses. The largest investments in any one group of industries are represented by the establishment of petroleum refineries producing asphalt, gasoline, distillate, fuel oil, and other refinery products. A total of six refineries have been built in the State since April, 1937, including some of the largest plants yet constructed, making a total of 136 refineries reporting operation at the end of 1937. The report on new plants does not include those which have increased their capacity during this period by enlarging their plants or installing new machinery to replace obsolete equipment.

The continued expansion of the petroleum industry in Texas during 1937 is responsible for the establishment of additional service industries to meet the demand for oil well tools and supplies. Of the sixty manufacturing plants for which charters were granted in Texas during the last three months, nine specified the manufacture of steel and iron products. Four of this group are assembly or branch factories of companies having home offices out of the State, and five are local establishments. These plants include the production of oil well tools, bronze castings, gas appliances, stoves, sheet metal products, and similar articles which are distributed throughout Texas and the Southwest. In most instances foundries and factories engaged in producing new merchandise also do repair work and manufacture products for local distribution.

Among the new wood-working industries, not including saw mills manufacturing lumber and cross-ties, are at least five new factories building special bodies for motor vehicles, four new furniture factories, and three plants producing cabinets, wooden boxes and crates.

The demand for slat material in the construction of venetian blinds continues to increase rapidly as this type of shade becomes more widely used each year following the development of certain trends of modern architecture. Three new factories have been added during 1937 to the list of six plants already manufacturing venetian blinds in the State, including a company specializing in a similar article for use in automobiles. Magnolia and basswood meet the approval of the trade as satisfactory materials for use in the manufacture of this type of blinds and furnish the best substitute found so far for the Oregon cedar, which at one time was used almost exclusively for this purpose. The steadily increasing price of Oregon cedar and the greater demand for venetian blinds are reflected in the expansion of the industry in Texas, indicating that the prospects for the consumption of considerable amounts of magnolia and basswood are very favorable.

According to the *Biennial Census of Manufacture* for 1933, Texas ranked second among the states in the number of factories manufacturing brooms and brushes. In 1936 a total of 38 plants in Texas reported production of brooms and brushes as compared with 22 plants reported in 1933. The Texas Broom and Brush Manufacturers Association was organized during 1937 for the purpose of increasing the output and improving the quality of Texas brooms as well as enlarging the distribution area of Texas products.

New food processing plants in the State cover a wide range of products and are located largely in the tomato growing sections of the eastern areas of the State and in the Lower Rio Grande Valley. Eight new plants were reported during the summer of 1937 canning fruits and vegetables in addition to 59 plants operating in 1936. This list does not include manufacturers of vinegar and does not include relief canneries. Based on the Census reports of 1933 the number of canneries in the State has doubled since that year.

Although a complete list of the new canning plants in the Valley is not yet available, our records indicate that 28 plants, including 5 which were not in operation last year, are already producing canned citrus and vegetable products, or expect to open during the present season.

The fig packing industry in Texas has been long established, although this industry is confined to a comparatively small area. Two of the five plants reporting the packing of figs during the 1937 season were enlarged or rebult; and a group of three of these plants reported production of 5,000,000 pounds of processed fruit.

Other plants established during the latter half of 1937 for the manufacture of food products include six vinegar factories, five plants producing pickles and food specialties, four meat packing establishments, three mills producing vegetable oils and fats, and one flour mill. Two of the largest bakeries in the State are included in the list beginning operation within the last six months. The rapid growth of the bakery industry in Texas is further illustrated by the establishment of a plant producing compressed bakers' yeast, which is the first of its kind established in Texas.

The manufacture of clothing in Texas is definitely recognized as an important industry in the State and products from many of Texas' clothing factories now

have national distribution. In 1936 nearly all of the 52 factories manufacturing men's clothing and 28 plants producing women's clothing, not including millinery, reported more than statewide distribution of their products. Although we have no record of the number of factories closed since April, 1937, nine new plants have begun operation since that date, making a total of approximately 150 plants now manufacturing clothing in Texas.

Other new activities in the manufacture of wearing apparel are represented by the expansion of one hosiery mill and the establishment of a new plant, two new millinery manufacturers, one producer of service uniforms, and one leather goods manufacturer. More than 25 factories in the State now produce millinery goods, including small plants employing from 10 to 25 employees and large establishments employing more than 200 persons. The manufacture of clothing and millinery goods in Texas affords a needed outlet for many women employees, and it is largely because of the excellent labor conditions that the possibilities for greater development of the needle trades are especially favorable.

The Minerals Yearbook for 1937 states that most of the 60,000,000-pound increase in national output of carbon black during 1936 was recorded in Texas, more specifically in the Texas Panhandle, which was credited with nearly 80 per cent of the total production of the United States that year. The number and location of carbon black plants operating are subject to frequent change during the year and the extent of the increase in expansion of this industry cannot be reported until final figures for 1937 are released.

A total of five new plants, or expansions of factories already operating, have been reported during the last six months engaged in the production of chemicals, not including manufacturers of pharmaceutical preparations. These recently established plants include one plant manufacturing sodium compounds, and the expansion by a manufacturer of heavy chemicals to produce salt for industrial use. A new sulphur plant was put into operation in May, 1937.

According to information received by the Bureau of Business Research and published in the Supplement to the Directory of Texas Manufacturers, April, 1937, there were 7,240 establishments in Texas classified as manufacturers. This list included ice factories, bottling plants, and the larger bakeries. All firms reporting to the Bureau are listed in the Directory, while the Federal Census includes only those plants which have an annual production of goods valued at $5,000 or more. Many of these smaller plants, however, are locally significant and a complete list of all manufacturing plants in the State affords the most accurate information available concerning the trends of Texas manufacturing.

CLARA H. LEWIS.

Factors Determining Demand for Cotton

Ultimately the demand for raw cotton rests mainly on the uses of finished cotton goods and comparative prices of substitutes for cotton goods on the one hand, and the number and buying power of world population on the other. Adaptability of cotton to so many uses and the comparative cheapness of cotton goods are the main reasons why cotton accounts for over 80 per cent of the weight of the finer textile raw materials including cotton, wool, rayon, silk, and linen, and over 70 per cent if jute is included. The wide range of qualities of cotton goods and prices of those goods have been major factors in the adaptation of cotton to such a wide variety of uses among all income groups. Per capita income is the major factor determining per capita consumption of cotton goods. This is demonstrated by a comparison of per capita income and cotton goods consumption by countries and also by different income groups within countries. On an average the annual increase in world population accounts for more than half of the world's increase in demand for cotton goods, and the increase of per capital consumption the remainder. Increases in per capita consumption result more from lowering prices than from new uses.

Costs of finished cotton goods delivered to the consumers may be summarized under three heads in the inverse order of the proportionate importance in the consumer's dollar: (1) raw cotton delivered to mills, (2) costs of manufacture, and (3) costs of distribution of the manufactured goods to consumers. On an average the price received by the farmer for raw cotton represents only about one-fifth of the price of finished goods to consumers.

In many respects manufacturers of cotton and distributors of goods are all middlemen between the cotton growers and the consumers of cotton goods. It is to the best interest of the cotton growers for this spread to be no wider than is necessary to maintain efficient service. The activities of Japan and other low cost cotton manufacturing areas in driving down the costs of cotton manufacturing and merchandising are to the advantage of cotton growers. Legislative aid in maintaining items of costs of cotton manufacture above competitive levels should be studied with care by cotton growers.

BUYING POWER

Changes in buying power cause wide changes in cotton consumption. This fact is best shown by changes in world cotton consumption resulting from business depressions. The year, 1920–21, was the beginning of a marked but rather brief depression, and world cotton consumption was reduced 2,400,000 bales from the previous year and about 3,500,000 bales from the straight-line trend from 1915–16 through 1936–37. Cotton consumption did not again exceed the pre-depression high until 1924–25. This drastic decline in world consumption occurred in spite of an even more drastic decline in the price of cotton. The price of New Orleans spot cotton averaged 38.21 cents during 1919–20 and 16.55 cents during 1920–21. A part of

this decline was due to a decline in the general price-level, but a comparatively small part, for the buying power price of cotton declined from an average of 24.51 cents during 1919–20 to 13.80 cents during 1920–21.

The depression beginning in 1929 not only caused a greater reduction in the number of bales consumed than the depression beginning in 1920, but the reduced consumption continued over a longer period. The low for consumption was reached in 1930–31 at 22,402,000 bales —a reduction of 3,380,000 bales from 1928–29. World cotton consumption did not reach a new high again until 1935–36.

As in 1920–21 prices of cotton suffered a tremendous drop after 1928–29. The price of New Orleans middling 7/8 inch spot cotton averaged 18.98 cents during 1928–29 and only 6.20 during 1931–32.

War and the preparation for war increase the demand for cotton because much cotton is used in the manufacture of war materials and because the huge government spending has the effect of increasing income temporarily.

Prices Affect Demand

Changing cotton prices have a strong effect on demand for cotton, though, as already pointed out, changes in general business have a greater influence than changing prices. In 1926–27 the New York Cotton Exchange index of general manufacturing in the United States was about 108; the index of cotton prices was about 85; and the index of cotton manufacturing was about 112. The index price of cotton in 1927–28 and 1928–29 was above the index price of all commodities, and the index of cotton manufacturing was below the index of general manufacturing. Since 1930–31 the index of cotton prices has been much below the index of all commodities; and for all of those years the index of cotton goods manufacture has been above the index of all manufactures.

Volume of world demand has not responded to the relatively very low prices of cotton since 1931 as much as it should, partly because of political interference. Some countries of Europe, especially Germany, Italy, and Spain, consumed about 1,000,000 bales less cotton in 1936–37 than in 1928–29, largely because of their mobility to establish satisfactory foreign trade relations.

A. B. Cox.

COTTON BALANCE SHEET

The indicated supplies of cotton in the United States on January 1, 1938, were 17,448,000 bales compared with 11,794,000 bales on this date last year, and a previous all-time high of 17,090,000 on this date, 1932. The buying power price in January, 1932, was 9.64 cents; and it is now 10.67 cents.

Stocks of cotton in the United States increased 5,654,000 bales from January 1 last year. This big increase in stocks of cotton in the United States is supplemented by an increase of 566,000 bales of United States cotton in European ports and afloat to Europe.

Price calculations based on average changes in index prices resulting from average changes in supplies over the past seven years indicate a New Orleans price ranging from about 7.75 to 8.30 cents.

SPINNERS MARGIN

Spinners ration margin on American cotton based on the ratio of the price of 32's twist yarn in Manchester and middling 7/8 inch cotton in Liverpool average 233 during December compared with 247 in November and 175 last year. The pence margin during December averaged 6.40d compared with 6.76d in November and 5.24d for December last year. For more than a year now English spinners have been receiving a price for 32's twist more than double the price paid for cotton.

LUMBER

(In Board Feet)

	Dec. 1937	Dec. 1936	Nov. 1937
Southern Pine Mills:			
Average Weekly Production per Unit	233,364	279,902	272,139
Average Weekly Shipments per Unit	203,177	324,086	241,211
Average Unfilled Orders per Unit, End of Month	611,772	1,096,529	498,208

Note: From Southern Pine Association.

STOCK PRICES

	Dec. 1937	Dec. 1936	Nov. 1937
Standard Indexes of the Securities Markets:			
419 Stocks Combined	82.2	122.8†	82.9
347 Industrials	95.2	142.6†	96.1
32 Rails	31.2	54.4	31.4
40 Utilities	78.8	110.6	79.5

†Revised.
Note: From Standards Statistics Co., Inc.

DECEMBER SHIPMENTS OF LIVE STOCK CONVERTED TO A RAIL-CAR BASIS§

	Cattle		Calves		Hogs		Sheep		Total	
	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936
Total Interstate Plus Fort Worth¶	3,615	3,769	859	973	341	772	280	116	5,095	5,630
Total Intrastate Omitting Fort Worth	662	1,077	133	186	22	76	114	174	931	1,513
TOTAL SHIPMENTS	4,277	4,846	992	1,159	363	848	394	290	6,026	7,143

TEXAS CAR-LOT§ SHIPMENTS OF LIVE STOCK, YEAR 1937

	Cattle		Calves		Hogs		Sheep		Total	
	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936
Total Interstate Plus Fort Worth¶	59,551	41,174	12,672	8,892	7,132	6,732	10,985	4,486	90,340	61,284
Total Intrastate Omitting Fort Worth	9,672	9,707	1,749	1,825	532	525	2,630	1,687	14,583	13,744
TOTAL SHIPMENTS	69,223	50,881	14,421	10,717	7,664	7,257	13,615	6,173	104,923	75,028

§Rail-car Basis: Cattle, 30 head per car; calves, 60; hogs, 80; and sheep, 250.
¶Fort Worth shipments are combined with interstate forwardings in order that the bulk of market disappearance for the month may be shown.
Note: These data are furnished the United States Bureau of Agricultural Economics by railway officials through more than 1,500 station agents, representing every livestock shipping point in the State. The data are compiled by the Bureau of Business Research.

COMMODITY PRICES

	Dec. 1937	Dec. 1936	Nov. 1937
WHOLESALE PRICES:			
U. S. Bureau of Labor Statistics (1926 = 100)	81.7	84.2	83.3
The Annalist (1926 = 100)	85.5	89.2†	88.0†
FARM PRICES:			
U. S. Department of Agriculture (1910–14 = 100)	104.0	126.0	107.0
U. S. Bureau of Labor Statistics (1926 = 100)	72.8	88.5	75.7
RETAIL PRICES:			
Food (U. S. Bureau of Labor Statistics, 1923–25 = 100)	82.6	82.9	83.6
Department Stores (Fairchild's Publications, Jan. 1931 = 100)	93.2	91.7	94.5

†Revised.

TEXAS CHARTERS

	Dec. 1937	Dec. 1936	Nov. 1937†	Year 1937	Year 1936†
Domestic Corporations—					
Capitalization‖	$2,761	$1,723	$1,515	$27,391	$26,798
Number	93	114	106	1,490	1,639
Classification of new corpoartions:					
Banking-Finance	2	2	2	56	66
Manufacturing	19	18	14	245	241
Merchandising	26	24	28	391	403
Oil	17	28	25	319	393
Public Service		1	3	17	21
Real Estate-Building	5	10	10	121	129
Transportation	3	4	1	34	37
All Others	21	26	23	307	380
Number capitalized at less than $5,000	30	44	41	540	668
Number capitalized at $100,000 or more	6	4	3	58	44
Foreign Corporations (Number)	26	42	24	394	409

†Revised.

‖In thousands.

NOTE: Compiled from records of the Secretary of State.

DECEMBER RETAIL SALES OF INDEPENDENT STORES IN TEXAS

	December, 1937				Year, 1937		
	Number of Firms Reporting	Dollar Sales	Percentage Change in Dollar Sales from Dec. 1936	Percentage Change in Dollar Sales from Nov. 1937	Number of Firms Reporting	Dollar Sales	Percentage Change in Dollar Sales from Year 1936
TEXAS	1,073	21,456,695	− 1.1	+34.6	992	177,340,751	+ 5.3
STORES GROUPED BY LINE OF GOODS CARRIED:							
APPAREL	140	3,676,893	+ 7.2	+43.2	122	23,562,323	+ 9.2
Family Clothing Stores	36	536,513	+ 9.8	+37.1	31	3,085,246	+ 6.8
Men's and Boys' Clothing Stores	48	1,321,992	+ 6.8	+57.1	41	7,412,001	+ 7.9
Shoe Stores	20	177,298	+ 4.4	+36.6	19	1,601,361	+10.5
Women's Specialty Shops	36	1,641,090	+ 6.9	+36.1	31	11,463,715	+10.6
AUTOMOTIVE	135	3,651,853	−18.4	+ 8.0	138	43,778,543	0.0
Filling Stations	51	140,156	+ 5.2	− 8.0	44	1,626,263	+10.2
Motor Vehicle Dealers	94	3,511,697	−19.1	+ 8.7	94	42,152,280	− 0.4
COUNTRY GENERAL	103	822,058	− 9.1	+ 9.7	99	9,335,621	+ 6.4
DEPARTMENT STORES	62	8,817,817	+ 6.8	+59.2	54	56,790,872	+ 6.6
DRUG STORES	166	666,944	+ 4.0	+31.9	160	6,450,195	+ 4.5
FLORISTS	38	84,563	+11.7	+67.9	35	576,701	+15.1
FOOD	164	1,107,699	− 0.4	+ 5.1	153	12,053,126	+ 8.5
Grocery Stores	47	209,000	−13.9	+ 5.7	42	2,270,243	+ 5.6
Grocery and Meat Stores	117	898,699	+ 3.3	+ 4.9	111	9,782,883	+ 9.2
FURNITURE AND HOUSEHOLD	60	1,041,966	− 2.5	+20.0	55	9,488,162	+ 9.8
Furniture Stores	49	929,111	− 3.0	+20.4	44	8,204,450	+ 7.3
Household Appliance Stores	5	60,747	+ 5.4	+13.3	5	797,827	+37.4
Other Home Furnishings Stores	6	52,108	− 3.4	+22.0	6	485,885	+17.5
JEWELRY	49	668,319	+ 1.5	+225.5	41	2,351,859	+10.5
LUMBER, BUILDING, AND HARDWARE	102	687,578	−14.8	−12.4	98	10,252,507	+ 4.1
Hardware Stores	56	297,643	− 8.0	− 5.5	52	3,524,719	+ 9.7
Lumber and Building Material Dealers	46	389,935	−19.3	−17.1	46	6,727,788	+ 1.4
RESTAURANTS	24	98,070	+ 2.4	+ 3.7	18	963,687	+10.3
ALL OTHER STORES	20	132,935	−18.4	− 8.5	19	1,737,155	+ 4.0
TEXAS STORES GROUPED ACCORDING TO POPULATION OF CITY:							
All Stores in Cities of—							
OVER 100,000 POPULATION	276	12,226,990	− 2.1	+43.3	250	95,369,964	+ 4.5
50,000–100,000 POPULATION	122	2,442,720	+ 0.5	+38.9	110	18,233,451	+ 7.9
2,500–50,000 POPULATION	455	5,395,067	+ 4.2	+24.8	417	47,601,086	+ 7.0
LESS THAN 2,500 POPULATION	220	1,391,918	−12.9	+ 4.5	215	16,136,250	+ 2.8

NOTE: Prepared from reports from independent retail stores to the Bureau of Business Research, coöperating with the United States Department of Commerce.

CEMENT

(In Thousands of Barrels)

	Dec. 1937	Dec. 1936	Nov. 1937	Year 1937	Year 1936
Texas Plants—					
Production	502	501	578	6,918	5,840
Shipments	420	467	503	6,705	5,853
Stocks	947	729	856		
United States—					
Production	7,044	8,971	9,248	116,475	112,396
Shipments	4,780	6,246	8,189	113,998	112,566
Stocks	24,899	22,441	22,634		
Capacity Operated	32.2%	40.3%	43.7%		

NOTE: From U. S. Department of Interior, Bureau of Mines.

PETROLEUM

Daily Average Production

(In Barrels)

	Dec. 1937	Dec. 1936	Nov. 1937
East Central Texas	91,900	88,140	106,500
East Texas	446,810	445,540	466,800
Gulf Coast¶	193,740	166,590	199,750
North Texas	72,860	64,530	73,100
Panhandle	71,010	62,770	72,100
Southwest Texas	244,640	178,200	247,950
West Central Texas	32,960	33,180	34,300
West Texas	191,820	165,110	200,800
STATE	1,345,740	1,204,060	1,401,300
UNITED STATES	3,434,100	3,104,010	3,518,550
Imports	156,657	136,457	125,607

¶Includes Conroe.
NOTE: From American Petroleum Institute.
See accompanying map showing oil producing districts of Texas.

Gasoline sales as indicated by taxes collected by the State Comptroller were: November 1937, 100,842,000 gallons; November 1936, 92,794,000 gallons; October 1937, 103,968,000 gallons.

TEXAS COMMERCIAL FAILURES

	Dec. 1937	Dec. 1936	Nov. 1937†	Year 1937†	Year 1936†
Number	19	11	15	166	171
Liabilities‖	$280	$130	$203	$3,027	$2,083
Assets‖	$145	$ 35	$ 93	$ 861	$ 816
Average Liabilities per Failure‖	$ 15	$ 12	$ 14	$ 18	$ 12

†Revised.
‖In thousands.
NOTE: From Dun and Bradstreet, Inc.

DECEMBER CARLOAD MOVEMENT OF POULTRY AND EGGS

	Cars of Poultry								Cars of Eggs	
	Live				Dressed					
	Chickens		Turkeys		Chickens		Turkeys			
	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936
Shipments from Texas Stations										
TOTAL	6	3	4	26	39	63	539	586	29	19
Intrastate						3		3	12	
Interstate	6	3	4	26	39	60	539	583	17	19
Interstate Shipments Classified										
New York	6	3		7	12	10	148	167	1	2
Illinois				2		5	39	33	2	4
Massachusetts				6	6	4	47	71	1	
New Jersey					5	3	17	30		
Pennsylvania				4	6	4	68	59	1	
Louisiana			1			1	7	6	3	2
Connecticut				1	2	2	20	20		
Missouri						1	11	20		2
Georgia						6	11	3		2
Michigan				2		6	38	47		
California					3				2	2
Alabama						1	4	6	1	
Florida				2		5	23	19	1	3
Rhode Island				2	1	1	8	18		
Ohio							33	30	1	
Tennessee			3			2	6	5	1	
Maryland						3	11	13		
Mississippi							1			
Indiana							1	1		
N. Hampshire						1	5	7		
West Virginia							2	1		
Virginia						2	8	6		
S. Carolina									1	1
N. Carolina						1	1	2	1	1
Iowa					2		11			
Dist. of Col.						2	5	7		
Nebraska					2		1			
Wisconsin								1		
Kansas									1	
Vermont								1		
Maine							10	9		
Kentucky							3	1		
Receipts at Texas Stations										
TOTAL					6	2		5	65	33
Intrastate					4	2		5	8	11
Interstate					2				57	22
Interstate Receipts Classified										
Kansas									25	12
Missouri									21	
Wisconsin									1	
Oklahoma										3
Nebraska									1	1
Illinois									7	1
New York					1					
Iowa					1					3
Georgia									2	
California										2

NOTE: These data are furnished the U. S. Department of Agriculture, Division of Crop and Livestock Estimates, by railway officials through agents at all stations which originate and receive carload shipments of poultry and eggs. The data are compiled by the Bureau of Business Research.

COTTON BALANCE SHEET FOR THE UNITED STATES AS OF JANUARY 1

(In Thousands of Running Bales Except as Noted)

	Carryover Aug. 1	Imports to Jan. 1¶	Government Estimate as of Dec. 1§	Total	Consumption to Jan. 1§	Exports to Jan. 1§	Total	Balance Jan. 1
1928–1929	2,536	152	14,373	17,061	2,779	4,788	7,567	9,494
1929–1930	2,313	140	14,919	17,372	2,738	4,162	6,900	10,472
1930–1931	4,530	19	14,243	18,792	2,010	3,947	5,957	12,835
1931–1932	6,369	34	16,918	23,321	2,191	4,037	6,228	17,093
1932–1933	9,682	38	12,727	22,447	2,342	4,246	6,588	15,859
1933–1934	8,176	55	13,177	21,408	2,415	4,180	6,595	14,813
1934–1935	7,746	49	9,731	17,526	2,134	2,399	4,533	12,993
1935–1936	7,138	42	10,734	17,914	2,424	3,461	5,885	12,029
1936–1937	5,397	57	12,407	17,861	2,897	3,177	6,074	11,787
1937–1938	4,498	40	18,746	23,284	3,185	2,651	5,836	17,448

The cotton year begins August 1. ¶In 500-pound bales. §In running bales, counting round bales as half bales.
NOTE: The figures have been revised in accordance with the revisions made by the United States Bureau of the Census.

CONSUMPTION OF ELECTRIC POWER IN TEXAS

	Power Consumed (In Thousands of K.W.H.)					Percentage Change		
	Dec. 1937	Dec. 1936	Nov. 1937	Year 1937	Year 1937	Dec. 1937 from Dec. 1936	Dec. 1937 from Nov. 1937	Year 1937 from Year 1936
Commercial	42,178	36,632	42,292	505,298	436,042	+15.1	− 0.3	+15.9
Industrial	89,163	81,429	92,757	1,154,369	980,585	+ 9.5	− 3.9	+17.7
Residential	31,291	26,967	31,033	359,921	310,131	+16.0	+ 0.8	+16.1
All Other	24,473	21,571	25,326	311,380	254,915	+13.5	− 3.4	+22.2
TOTAL	187,105	166,599	191,408	2,330,968	1,981,673	+12.3	− 2.2	+17.6

NOTE: Prepared from reports from 15 electric power companies to the Bureau of Business Research.

BUILDING PERMITS

	Dec. 1936	Dec. 1937	Nov. 1937	Year 1937	Year 1936
Abilene	$ 29,945	$ 84,310	$ 29,245	$ 451,652	$ 383,151
Amarillo	57,397	39,607	73,506	1,188,199	1,140,462
Austin	148,205	214,526	321,179	3,868,038	3,969,878¶
Beaumont	449,683	174,075	47,938	1,432,264¶	1,233,021¶
Big Spring	20,840	8,920	46,400	220,320	132,629¶
Brownwood	.....	1,675	1,200	22,333	15,322
Cleburne	49,455	3,250	795	90,077	37,955
Corpus Christi	87,348¶	141,635	195,078	2,815,900¶	2,700,759
Corsicana	3,375	10,747	7,740	109,795	176,218
Dallas	877,316	2,146,304	895,951	11,475,959	14,072,053
Del Rio	5,265	1,500	4,220	111,524¶	76,092
Denison	10,621	11,765	2,950	80,632§	‡
El Paso	154,973	50,601	83,850	1,579,369	941,613
Fort Worth	398,190	614,760	188,788	6,711,401	8,526,115
Galveston	471,088	32,765	221,079	1,677,836¶	1,316,732¶
Graham	9,125	35,200	6,550	213,260¶	179,770
Harlingen	5,460	9,425¶	36,325	349,802¶	69,529¶
Houston	1,536,881	1,649,370	1,080,250	18,727,135	18,438,514
Jacksonville	425	200	900	126,368	57,875
Laredo	250	38,900	8,375	99,765	137,390
Lubbock	531,957	61,465¶	115,520	2,049,356	907,910¶
McAllen	19,430	7,300	6,070	354,645	215,485
Marshall	7,662	22,520	27,042	354,469	268,822¶
New Braunfels	2,525	8,915	1,895	146,681	221,595
Palestine	1,179	8,552	9,868	174,010	203,482
Pampa	21,250	16,600	36,000	288,135¶	401,243¶
Paris	6,320	6,355	20,750	161,900	108,153
Plainview	2,350	10,000	1,295	88,521¶	28,700¶
Port Arthur	37,908	58,802	41,913	897,068	912,557
San Angelo	66,522	51,760	32,392	405,313	332,975
San Antonio	275,255¶	262,809	223,374	4,045,135¶	3,298,341¶
Sherman	76,442	6,552	10,334	379,573	225,392
Snyder	.....	500	1,000	42,675	7,600
Sweetwater	9,842	4,548	10,620	165,214	79,609¶
Waco	20,227	144,150	68,177	1,171,701	847,496
Wichita Falls	14,045	547,577	32,014	313,095	894,698
TOTAL	$5,408,756	$6,487,940	$ 3,890,583	$62,308,488	$62,459,136

‡Not available.
§Not included in total.
¶Does not include public works.
NOTE: Compiled from reports from Texas chambers of commerce to the Bureau of Business Research.

RETAIL SALES OF INDEPENDENT STORES IN TEXAS

	December, 1937				Year, 1937		
	Number of Firms Reporting	Dollar Sales	Percentage Change in Dollar Sales from Dec. 1936	Percentage Change in Dollar Sales from Nov. 1937	Number of Firms Reporting	Dollar Sales	Percentage Change in Dollar Sales from Year 1936
TOTAL TEXAS	1,073	21,456,695	− 1.1	+34.6	992	177,340,751	+ 5.3
TEXAS STORES GROUPED BY PRODUCING AREAS:							
DISTRICT 1-N	57	724,486	+ 7.5	+26.9	51	6,027,834	+10.7
Amarillo	14	315,164	+13.8	+45.8	11	1,687,612	+19.0
Pampa	11	238,709	− 0.9	+16.2	11	2,713,795	+ 3.7
Plainview	8	50,574	+12.4	+ 8.9	8	484,687	+12.0
All Others	24	120,039	+ 7.9	+16.8	21	1,141,740	+16.9
DISTRICT 1-S	25	743,136	+50.0	+30.5	24	5,409,647	+28.0
Big Spring	8	55,663	+15.8	+18.2	7	358,363	+11.3
Lubbock	14	665,245	+59.4	+33.0	14	4,782,986	+29.6
All Others	3	22,228	−25.7	− 0.1	3	268,298	+26.5
DISTRICT 2	85	844,868	+14.9	+18.2	76	6,907,973	+13.5
Abilene	16	244,633	+10.0	+24.2	13	1,997,941	+17.1
Snyder	5	29,787	+38.8	− 0.7	4	280,048	+22.2
Vernon	6	39,567	+11.2	+40.2	6	322,533	+ 3.0
Wichita Falls	13	206,659	+17.3	+28.1	10	1,447,774	+20.6
All Others	45	324,222	+15.8	+ 8.7	43	2,859,677	+ 8.4
DISTRICT 3	27	317,922	−24.6	+ 1.9	25	3,625,700	− 2.0
Breckenridge	3	24,593	+ 1.3	+21.8	3	230,225	+ 5.5
Brownwood	6	62,288	−22.3	+13.5	5	625,484	− 1.3
Eastland	5	9,588	−14.6	−10.1	4	119,402	+ 8.9
Stephenville	4	33,503	−19.7	+ 1.3	4	347,624	− 5.6
All Others	9	187,950	−28.9	− 2.7	9	2,302,965	− 2.8
DISTRICT 4	282	8,136,952	− 4.3	+42.5	259	64,911,089	+ 1.7
Cleburne	9	62,047	− 6.8	+26.2	9	549,796	+ 6.3
Corsicana	11	114,772	− 7.4	+30.8	11	1,040,904	+ 1.6
Dallas	50	4,484,041	− 2.8	+42.6	50	35,292,326	+ 1.4
Denison	7	37,205	−20.7	+16.9	5	320,098	+ 1.2
Fort Worth	65	2,225,341	− 0.9	+55.7	52	15,342,665	+ 3.7
Sherman	7	52,795	− 3.8	+ 9.8	7	552,877	+11.2
Taylor	9	82,702	− 6.6	+50.4	9	863,928	− 4.3
Temple	10	78,609	− 8.2	+24.9	7	586,105	− 2.6
Waco	32	485,662	− 9.4	+38.4	29	3,942,270	+ 5.7
All Others	82	513,778	−20.7	+13.8	80	6,420,120	− 3.6
DISTRICT 5	109	1,277,996	− 9.2	+27.4	100	11,559,446	− 5.4
Bryan	11	101,397	− 4.0	+28.8	10	970,538	+ 0.2
Marshall	11	101,434	− 0.2	+58.9	11	742,513	+ 4.9
Nacogdoches	4	64,542	−16.0	+22.6	4	677,353	− 9.3
Tyler	16	311,697	− 6.9	+47.1	15	2,808,819	− 4.7
All Others	67	698,926	−11.3	+17.3	60	6,360,223	− 7.2
DISTRICT 6	39	1,498,585	− 0.8	+33.7	38	12,763,747	+ 7.1
El Paso	29	1,395,206	− 1.1	+35.8	28	11,498,573	+ 6.1
All Others	10	103,379	+ 3.4	+10.8	10	1,265,174	+16.5
DISTRICT 7	53	471,242	+ 2.4	+19.7	51	4,358,720	+11.3
Brady	8	44,489	−12.0	+41.7	8	515,628	+ 3.8
San Angelo	15	249,067	+12.7	+19.5	13	2,121,346	+16.9
All Others	30	177,686	− 5.8	+15.6	30	1,721,746	+ 7.2
DISTRICT 8	188	3,115,887	− 3.6	+30.3	174	25,761,239	+ 6.2
Austin	23	628,414	+ 5.3	+55.5	19	4,000,984	+ 6.0
Corpus Christi	11	78,840	− 5.0	− 0.4	11	892,521	+27.9
Cuero	7	34,385	−17.5	+15.0	7	360,197	+14.3
Lockhart	7	50,637	− 9.2	−10.1	7	595,042	+ 0.9
San Antonio	79	1,857,142	− 4.9	+33.8	71	14,743,683	+ 5.5
San Marcos	5	43,392	−12.3	+ 5.0	5	504,812	+ 8.4
All Others	56	423,077	− 6.6	+ 8.0	54	4,664,000	+ 4.8
DISTRICT 9	156	3,871,743	+ 0.4	+37.9	144	31,895,290	+ 8.7
Beaumont	26	598,295	+ 1.2	+40.0	22	3,547,418	+14.9
Galveston	21	389,902	+ 6.2	+25.8	21	3,854,510	+ 8.3
Houston	53	2,265,260	0.0	+46.6	49	18,492,717	+ 9.4
Port Arthur	20	340,447	+ 0.1	+27.8	19	2,888,269	+ 4.8
Victoria	6	36,741	−18.2	+ 8.8	4	349,446	− 2.7
All Others	30	241,098	− 2.5	+ 7.1	29	2,762,930	+ 3.1
DISTRICT 10	52	453,878	+15.9	+28.3	50	4,120,066	+20.8
Brownsville	11	104,033	+24.6	+26.7	11	942,071	+34.0
Harlingen	9	128,895	+25.5	+57.3	9	1,266,918	+21.4
Laredo	4	75,924	+ 2.6	+31.8	3	354,439	− 1.7
All Others	28	145,026	+10.4	+ 9.8	27	1,556,638	+19.5

See map on page 11 of the November 24, 1937, issue showing crop reporting districts.

NOTE: Prepared from reports from independent retail stores to the Bureau of Business Research, coöperating with the United States Department of Commerce.

DECEMBER EMPLOYMENT AND PAY ROLLS IN TEXAS CLASSIFIED BY CITIES AND EMPLOYMENT GROUPS

Pay Rolls Ending Nearest Fifteenth of Month

	No. of Establishments	Workers: Number Dec. 1937	Workers: Percentage from Dec. 1936	Workers: Change from Nov. 1937	Pay Roll: Dollars Dec. 1937	Pay Roll: Percentage from Dec. 1936	Pay Roll: Change from Nov. 1937	Average Weekly Wage per Worker: Dec. 1937	Dec. 1936	Nov. 1937
Abilene	16	257	+10.8	+ 0.4	$ 5,638	+17.6	+ 0.8			
Amarillo	39	1,106	+17.7	− 3.2	28,765	+35.4	− 2.3			
Austin	22	580	+ 7.6	− 0.5	11,662	+ 3.7	+ 0.1			
Beaumont	25	2,554	− 3.8	−10.0	75,665	+ 7.3	− 2.9			
Corpus Christi	8	304	+16.9	+ 2.7	4,801	+28.9	+ 4.0			
Dallas	188	12,301	+ 1.2	+ 4.7	279,982	+ 6.8	+ 4.0			
Denison	9	941	+ 4.0	− 3.8	14,691	+28.4	+10.2			
El Paso	75	2,424	+18.0	− 1.2	52,518	+20.5	− 2.6			
Fort Worth	97	5,786	− 4.4	− 2.9	134,995	+ 3.8	− 5.9			
Galveston	20	559	+ 7.1	+ 0.9	14,916	− 0.9	− 2.7			
Houston	189	12,608	− 1.5	−10.1	309,453	+ 5.8	− 9.3			
Laredo	9	169	+13.4	+ 5.0	2,365	+ 5.1	+ 3.2			
Port Arthur	8	7,482	+ 3.8	− 2.0	231,336	+15.6	− 2.0			
San Antonio	132	4,797	+ 3.7	+ 9.0	92,709	+ 4.7	+ 0.6			
Sherman	13	670	− 3.6	0.0	10,936	−13.0	− 2.2			
Waco	40	1,820	+ 1.2	+ 5.0	31,285	− 2.1	− 5.5			
Wichita Falls	26	886	+48.9	+ 5.0	21,150	+50.6	+ 1.6			
All Other Cities	819	31,082	+ 5.7	− 0.6	351,183	+14.9	+ 0.3			
STATE	1,735	86,326	+ 3.3	− 1.4	2,174,050	+11.1	− 1.7	$25.18	$23.41	$25.26
BUILDING MATERIALS	101	8,369	+ 4.7	− 0.2	162,432	+11.6	+ 0.8	19.41	18.20	19.22
Brick, Tile, Terra Cotta	12	487	−25.8	+ 5.6	5,580	−30.3	+ 7.5	11.46	12.21	11.26
Cement	8	1,365	+ 1.7	+ 7.9	29,874	+ 8.9	+ 2.9	21.89	20.45	22.95
Foundries, Machine Shops	25	2,362	+19.7	− 1.5	61,339	+30.3	+ 7.7	25.97	23.86	23.77
Millwork	18	591	− 0.7	− 2.5	11,659	+ 1.0	− 6.4	19.73	19.40	20.55
Saw Mills	12	2,725	+ 2.6	− 1.6	36,286	0.0	− 7.8	13.32	13.66	14.21
Structural Iron Works	11	721	+ 9.7	− 6.0	14,944	+18.1	− 2.9	20.73	19.26	20.07
Other Building Materials	15	118	+ 1.7	− 0.8	2,750	+10.0	+ 1.1	23.31	21.54	22.86
CHEMICALS‖	26	468	+ 1.1	− 4.1	9,902	+16.9	− 2.9	21.16	18.30	20.90
CLOTHING AND TEXTILES	40	3,988	− 6.2	− 3.9	47,791	− 3.9	− 0.9	11.98	11.70	11.62
Cotton Textile Mills	9	2,598	+ 0.9	0.0	32,615	+ 0.4	+ 3.8	12.55	12.61	12.09
Men's Work Clothing	10	757	−30.8	−12.6	6,112	−33.8	−15.1	8.07	8.44	8.31
Women's Clothing	9	96	− 6.8	−36.8	1,025	− 9.6	−46.8	10.68	11.01	12.67
Other Textile Products	12	537	+12.1	+ 0.4	8,039	+16.9	+ 4.8	14.97	14.36	14.34
COTTON OIL MILLS	29	1,495	+26.8	− 9.5	24,018	+50.7	− 9.0	16.07	13.51	15.98
DISTRIBUTION	574	18,492	+ 8.0	+ 8.8	413,959	+10.0	+ 5.5	22.39	21.97	23.08
Retail Trade	345	12,909	+10.6	+14.8	260,779	+11.2	+10.1	20.20	20.09	21.06
Wholesale Trade	229	5,583	+ 2.5	− 2.9	153,180	+ 8.1	− 1.5	27.44	26.01	27.04
FOOD PRODUCTS	104	6,854	− 0.2	− 5.0	154,924	+ 7.3	− 7.8	22.60	21.01	23.29
Bakeries	19	660	+ 3.6	− 0.8	14,012	+ 9.9	+ 2.0	21.23	20.01	20.65
Beverages	19	375	+16.8	− 9.0	8,713	+15.6	−11.7	23.23	23.48	23.95
Flour Mills	8	555	+18.3	+ 3.2	12,947	+19.1	+ 4.8	23.33	23.17	22.96
Ice Cream	7	281	+17.1	− 6.0	5,387	+10.4	− 6.3	19.17	20.33	19.23
Meat Packing, Slaughtering	9	3,449	− 6.1	− 6.8	88,519	+ 5.6	−17.6	25.67	22.82	27.11
Other Food Products	42	1,534	+ 0.3	− 4.0	25,346	+ 3.5	− 2.4	16.52	16.02	16.26
FOREST PRODUCTS	26	1,082	− 2.3	− 0.4	19,839	− 1.5	− 0.1	18.34	18.19	18.28
Furniture Manufacturing	6	180	− 8.6	−12.2	3,885	− 6.4	+ 6.4	21.58	21.07	17.82
Paper Products	12	505	− 4.7	− 3.8	10,418	+ 1.4	− 3.2	20.63	19.39	20.50
Other Forest Products	8	397	+ 4.5	+11.5	5,536	− 3.0	+ 1.7	13.94	15.02	15.29
PETROLEUM	61	22,433	− 0.8	− 6.8	754,942	+12.5	− 4.7	33.65	29.66	32.90
Crude Petroleum Producing	23	4,983	+ 4.8	− 1.3	188,629	+18.6	+ 1.6	37.85	33.44	36.78
Petroleum Refining	38	17,450	− 2.3	− 8.3	566,313	+10.6	− 6.6	32.45	28.66	31.88
PRINTING AND PUBLISHING	57	1,614	+ 6.8	+ 0.6	51,946	+ 2.2	+ 3.7	32.18	33.63	31.22
Commercial Printing	32	495	+ 2.7	− 2.0	12,471	+ 3.2	− 1.2	25.19	25.07	24.99
Newspaper Publishing	16	1,035	+ 7.5	+ 2.0	36,820	+ 0.9	+ 5.5	35.57	37.89	34.38
Other Printing and Publishing	9	84	+27.3	0.0	2,655	+18.2	+ 3.7	31.61	34.05	30.48
PUBLIC UTILITIES	484	11,946	+ 5.2	− 0.2	352,665	+14.4	+ 1.1	29.52	27.15	29.14
Power and Light	442	7,741	+ 9.3	− 0.2	233,844	+19.5	+ 4.0	30.21	27.64	28.98
Steam Railroad Repair Shops	19	3,025	− 0.4	− 0.6	86,637	+ 5.5	− 5.7	28.64	27.04	30.18
Other Public Utilities	23	1,180	− 4.7	+ 0.7	32,184	+ 5.6	− 0.1	27.27	24.61	27.48
QUARRYING & NON-METALLIC MINING	22	1,297	+11.2	− 0.5	34,332	+12.9	− 2.0	26.47	26.07	26.88
SERVICE	145	4,613	+ 1.9	+ 1.3	68,712	+ 3.5	− 2.3	14.90	14.67	15.44
Business and Personal Service	39	508	+ 3.7	+16.2	11,602	+ 6.9	+ 1.8	22.84	22.15	26.07
Hotels	27	2,589	+ 1.3	+ 1.0	32,820	+ 2.0	− 1.3	12.68	12.60	12.97
Ice	59	677	+ 1.0	− 0.9	12,506	0.0	− 5.4	18.47	18.66	19.35
Laundries, Dyeing and Cleaning	20	839	+ 3.2	− 3.8	11,784	+ 8.5	− 5.5	14.05	13.35	14.29
ALL OTHER INDUSTRIES	66	3,675	+ 7.6	−10.3	78,588	+13.3	−12.8	21.38	20.30	21.98

‖Chemical and Allied Industries not elsewhere classified.

Note: Prepared from reports from Texas industrial establishments to the Bureau of Business Research, coöperating with the United States Bureau of Labor Statistics.

DECEMBER CREDIT RATIOS IN TEXAS RETAIL STORES

(Expressed in Per Cent)

	Number of Stores Reporting	Ratio of Credit Sales to Net Sales 1937	1936	Ratio of Collections to Outstandings 1937	1936	Ratio of Credit Salaries to Credit Sales 1937	1936
All Stores	73	61.8	60.8	41.6	42.5	0.9	0.9
Stores Grouped by Cities:							
Abilene	3	55.4	56.2	30.9	34.0	1.1	1.2
Austin	7	56.6	54.4	43.4	42.1	0.8	0.8
Beaumont	3	58.7	57.7	45.4	45.4	1.0	0.9
Dallas	10	68.8	67.5	42.1	43.7	0.8	0.8
Fort Worth	9	60.2	59.8	38.0	37.7	0.8	0.7
Galveston	3	66.3	67.2	44.7	42.3	1.0	1.0
Houston	8	59.3	58.7	42.8	45.2	1.3	1.3
San Antonio	5	58.1	56.3	46.8	47.5	0.6	0.6
Waco	4	59.1	55.8	31.3	34.1	0.9	0.8
All Others	21	56.6	55.5	42.5	42.1	0.9	1.0
Stores Grouped According to Type of Store:							
Department Stores (Annual Volume Over $500,000)	18	61.2	60.4	43.6	43.9	0.8	0.8
Department Stores (Annual Volume Under $500,000)	14	55.9	55.3	39.2	39.8	1.0	1.1
Dry Goods-Apparel Stores	5	54.8	57.4	42.1	36.8	1.2	1.1
Women's Specialty Shops	15	67.5	64.0	36.9	40.7	0.7	0.7
Men's Clothing Stores	21	62.4	62.7	40.2	40.1	1.3	1.1
Stores Grouped According to Volume of Net Sales During 1936:							
Over $2,500,000	10	63.2	63.3	43.6	45.5	0.7	1.0
$2,500,000 down to $1,000,000	9	60.0	57.9	42.4	42.6	0.9	0.8
$1,000,000 down to $500,000	8	55.3	59.6	41.3	43.5	1.0	1.0
$500,000 down to $100,000	35	55.3	55.0	41.6	40.4	1.1	1.1
Less than $100,000	11	57.0	54.3	43.0	51.1	1.8	1.9

NOTE: The ratios shown for each year, in the order in which they appear from left to right, are obtained by the following computations: (1) Credit sales divided by net sales. (2) Collections during the month divided by the total accounts unpaid on the first of the month. (3) Salaries of the credit department divided by credit sales.

The data are reported to the Bureau of Business Research by Texas retail stores.

POSTAL RECEIPTS

	Dec. 1937	Dec. 1936	Nov. 1937	Year 1937	Year 1936
Abilene	$ 22,851	$ 21,069	$ 17,238	$ 206,242	$ 184,716
Amarillo	40,883	37,479	30,256	358,593	325,061
Austin	63,672	65,382	59,471	674,351	605,285
Beaumont	33,677	30,930	26,092	295,367	263,002
Big Spring	9,204	7,707	5,589	69,437	60,266
Brownwood	7,976	6,728	5,968	70,014	63,956
Corpus Christi	30,881	24,471	22,001	265,698	203,212
Corsicana	8,871	8,604	5,758	65,772	62,937
Dallas	481,862	457,614	371,611	4,362,489	4,242,493
Del Rio	6,539	5,050	3,972	54,162	45,697
Denison	7,080	6,941	5,149	57,372	55,252
El Paso	81,957	63,603	44,871	556,585	496,909
Fort Worth	193,735	184,567	146,287	1,722,199	1,617,960
Galveston	44,226	37,182	26,906	335,574	311,376
Graham	3,358	2,724	2,127	27,370	23,546
Harlingen	9,452	7,671	5,674	67,580	55,871
Houston	310,187	275,249	221,946	2,718,371	2,460,490
Jacksonville	3,678	3,583	2,956	41,599	39,883
Longview	13,780	31,282	8,575	117,472	128,415
Lubbock	22,661	17,528	16,054	182,769	155,963
McAllen	6,023	7,514	3,651	48,043	45,080
Marshall	8,370	8,560	5,890	69,603	66,547
Palestine	5,779	5,551	4,798	62,666	60,123
Pampa	10,575	8,674	6,469	82,200	73,835
Paris	8,109	7,332	6,272	71,820	67,688
Plainview	6,006	4,965	3,912	48,761	42,688
Port Arthur	21,472	17,655	12,380	148,372	127,277
San Angelo	16,413	14,077	10,705	133,839	125,523
San Antonio	167,867	159,357	116,717	1,417,529	1,336,754
Sherman	10,313	9,674	6,512	88,471	84,098
Snyder	1,887	1,500	1,730	16,032	15,318
Sweetwater	6,316	5,814	5,180	59,549	53,939
Waco	42,797	39,030	31,211	390,035	365,960
Wichita Falls	30,515	27,225	21,007	259,659	244,056
TOTAL	$ 1,738,971	$ 1,612,292	$ 1,264,935	$15,145,595	$14,111,176

NOTE: Compiled from reports from Texas chambers of commerce to the Bureau of Business Research.

BANKING STATISTICS

(In Millions of Dollars)

	Dec. 1937		Dec. 1936		Nov. 1937	
	Dallas District	United States	Dallas District	United States	Dallas District	United States
DEBITS to individual accounts	843	36,772	827	43,363	785	31,128
Condition of reporting member banks on—	Dec. 29, 1937		Dec. 30, 1936		Dec. 1, 1937	
ASSETS:						
Loans and investments—total	509	21,402	521	22,931	507	21,381
Loans—total	253	9,387	753	32,120	251	9,441
Commercial, industrial, and agricultural loans:						
On securities	11	579	‡	‡	12	579
Otherwise secured and unsecured	150	4,022	‡	‡	148	4,058
Open market paper	3	461	‡	‡	3	475
Loans to brokers and dealers in securities	3	894	3	1,289	3	876
Other loans for purchasing or carrying securities	15	635	—	—	15	650
Real estate loans	21	1,165	24	1,156	21	1,167
Loans to banks	—	66	—	66	1	68
Other loans:						
On securities	11	737	‡	‡	10	738
Otherwise secured and unsecured	39	828	‡	‡	38	830
U.S. Government obligations	178	8,018	197	9,241	179	7,963
Obligations fully guaranteed by U.S. Government	28	1,116	39	1,238	27	1,118
Other securities	50	2,881	53	3,263	50	2,859
Reserve with Federal Reserve Banks	113	5,427	105	5,163	117	5,374
Cash in vault	12	355	11	433	10	304
Balances with domestic banks	158	1,886	179	2,345	158	1,869
Other assets—net	28	1,267	29	1,378	29	1,313
LIABILITIES:						
Demand deposits—adjusted	391	14,431	380	15,571	401	14,612
Time deposits	128	5,205	121	5,067	127	5,234
U.S. Government deposits	22	691	40	702	16	416
Inter-bank deposits:						
Domestic banks	191	5,090	216	6,009	188	5,060
Foreign banks	—	442	1	427	—	418
Borrowings	—	9	1	23	—	6
Other liabilities	6	843	7	902	8	864
Capital account	82	3,626	79	3,549	81	3,631

‡Not available.

NOTE: From Federal Reserve Board.

Debits for the Dallas Federal Reserve District during the year 1937 were $10,391,740,000, as compared with $9,075,263,000 during the year 1936. Debits for all Federal Reserve Districts during the year 1937 were $467,199,815,000, as compared with $459,415,111,000 during the year 1936.

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